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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/432,824	11/02/1999	ROGER PHILLIP QUAYLE	A-68101/JGW	1614

22242 7590 10/22/2003

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EXAMINER

PAN, YUWEN

ART UNIT PAPER NUMBER

2682

DATE MAILED: 10/22/2003

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/432,824

Applicant(s)

QUAYLE ET AL.

Examiner

Yuwen Pan

Art Unit

2682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 1-5, 11 and 13-21 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-10 is/are allowed.
- 6) ☒ Claim(s) 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.
2. The examiner acknowledged that the applicant has requested to withdraw claims 1-5, 11, and 13-21 for considerations.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 12 is rejected under 35 U.S.C. 102(e) as being anticipated by Widegren et al (US006374112B1).

Widegren discloses a method of operating a cellular wireless Internet access system (see figure 1, items 14, 20, 24 and 30) where a plurality of base stations are each related to a cell and are located at a low to ground level, along with a plurality of subscriber terminals in each cell to provide a relative low level of interference to adjacent systems partially due to attenuation by foliage, building cluster, and terrain losses, but where such factors causing attenuation also causes a time delay spread of the signal due to multipath signals (see column 2, line 39-44, column 4 and lines 26-50), the method comprising the steps of:

Transmitting simultaneously on the same radio frequency channel a combined stream of data on a plurality of data bearer sub-channels, each subchannel using a different spreading code (see column 3 and lines 41-42) and having a data rate which is a fraction of the combined stream of data, whereby said reduced data rates increased symbol periods and thereby reduce corruption of data due to said delay spread and where such subchannels are combined using multiplexing techniques (see column 6 and lines 15-21).

Widgren doesn't disclose that subchannels are de-combined using inverse multiplexing techniques. However, it is inherent for any CDMA system to utilize inverse multiplexing techniques to de-combined at least one subchannels from received band. Therefore, it is obvious to one ordinary skill in the art at the time the invention was made to utilize inverse multiplexing techniques such that predetermined subchannels would be decoded.

Allowable Subject Matter

5. Claims 6-10 are allowed.

With respect to claim 6, the prior arts of record do not disclose a cellular wireless internet access system with the combination of features such as a small frequency allocation obtainable anywhere within the designated frequency band using a single frequency channel of varying bandwidth 6 and 24MHz using different spread spectrum transmission chip rates and providing high net data rates of 1.5-3.0 Mbps using a plurality of data bearer subchannels on a said single frequency channel, orthogonal downlink spreading codes for CDMA transmission, and successive interference cancellation or simultaneous uplink spreading codes.


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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yuwen Pan whose telephone number is 703-305-7372. The examiner can normally be reached on 8-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 703-308-6739. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.


Yuwen Pan
October 2, 2003


VIVIAN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600